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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/668,074      | 09/22/2003  | James J. Benke       | 02-EDP-168          | 1257             |

7590 04/04/2006

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EXAMINER

NGUYEN, DANNY

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2836

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |  |                     |  |
|------------------------------|------------------------|--|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> |  | <b>Applicant(s)</b> |  |
|                              | 10/668,074             |  | BENKE, JAMES J.     |  |
|                              | <b>Examiner</b>        |  | <b>Art Unit</b>     |  |
|                              | Danny Nguyen           |  | 2836                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8,11-16 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 6,9,10,17,18 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/22/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 4, 7, 8, 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by T.E. Curtis (USPN 3,471,669).

Regarding claims 1, 4, 14, Curtis discloses a medium voltage vacuum circuit interrupter (figures 3-5) comprises a first terminal (conductor 68), a second terminal (conductor 66), a vacuum switch (14) comprising a vacuum envelope (50) containing a fixed contact assembly (48) and a movable contact assembly (46) movable between a closed circuit position in electrical communication with the fixed contact assembly and an open circuit position spaced apart from the fixed contact assembly, the fixed contact assembly (48) electrically interconnected with the first terminal (68); a flexible conductor (64) electrically connecting the movable contact assembly with the second terminal (66); an operating mechanism (e.g. 10, 16, 20, 28, 38, 80) moving the movable contact assembly between the closed circuit position and the open circuit position, and an elongated housing (76) including a first end (96) supporting the first terminal and an opposite second end (98) supporting the second terminal, the housing (76) enclosing the vacuum switch (14), the flexible conductor (64) and the operating mechanism.

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Regarding claims 2, 13, Curtis discloses the housing (76) has an opening, and wherein the operating mechanism includes an operating handle (16 and 80), which protrudes through the opening of the housing (see figures 2 and 4).

Regarding claims 7, 8, Curtis discloses each of the first and second terminals (66, 68) includes a termination (70) structured to electrically connect to a cable (see col. 4, lines 27-46).

Regarding claims 11, 12, Curtis discloses the elongated housing (76) includes a elongated insulating cylindrical portion housing the vacuum switch (14), the flexible conductor (64) and the operating mechanism, and two conical end portions covering the first and second terminals (see figure 5).

2. Claims 1, 15, 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Luehring (USPN 4,527,028).

Regarding claims 1, 15, 22, Luehring discloses a multi-pole medium voltage vacuum circuit interrupter (figures 4, 7, 8) comprises a plurality of circuit interrupter poles (32a-32c), each of the circuit interrupter poles comprises a first terminal (such as terminal 52); a second terminal (80); a vacuum switch (32a) comprising a vacuum envelope (46) containing a fixed contact assembly (58) and a movable contact assembly (60) movable between a closed circuit position in electrical communication with the fixed contact assembly and an open circuit position spaced apart from the fixed contact assembly, the fixed contact assembly electrically interconnected with the first terminal, a flexible conductor (82) electrically connecting the movable contact assembly

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with the second terminal; an operating mechanism (e.g. solenoid 87, ) moving the movable contact assembly between the closed circuit position and the open circuit position; an elongated housing (146, 88, see figure 8) including a first end (54) supporting the first terminal and an opposite second end supporting the second terminal (80)(see figure 8), the housing enclosing the vacuum switch (32A), the flexible conductor (82) and the operating mechanism (such as 87), and means (such as operating shaft 108, see figures 1, 8) for linking the operating mechanism (87) to another operating mechanism (87b).

Regarding claims 20, 21, Luehring discloses each of the first and second terminals includes a termination structured to couple to a line power cable (col. 4, lines 16-20, lines 58-60).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5, 16, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luehring in view of James E. McClain (USPN 3,597,713, hereinafter James). Luehring discloses all limitations of claims 1 and 15 as discussed above, but Luehring does not disclose a current sensor, a trip unit, and an operating handle as claimed. James discloses a vacuum interrupter circuit (figures 1, 7) comprises a current sensor (85) senses a current passing between a movable contact and a second terminal (current

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from terminal 61 passing through the flexible conductor 60), a strip unit (97-99) response to the sensed current to open the circuit in case a fault detected (col. 3, 4, lines 73-35), and an operating handle (31,81). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified to the vacuum circuit of Luihring to incorporate the current sensor and the strip unit, and the handle as disclosed by James in order to protect the vacuum circuit against the over-current event (col. 4, lines 27-35).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis in view of Link (USPN 3,956,721). Curtis discloses all limitations of claim 1 as discussed above, but Curtis does not disclose a fault indicator as claimed. Link discloses a vacuum interrupter circuit comprises an operating mechanism includes a fault indicator (see abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified to the vacuum circuit of Curtis to incorporate the fault indicator as disclosed by Link in order to indicate condition of the vacuum circuit (see abstract).

#### ***Allowable Subject Matter***

5. Claims 6, 9, 10, 17, 18, 23 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (571)-272-2054. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.

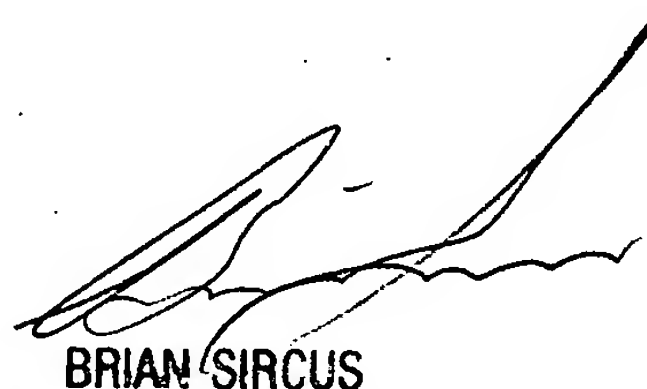
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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3/29/2006



BRIAN SIRCUS  
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